

WHAT IS CLAIMED IS:

1. A method of manufacturing a connection substrate, comprising steps of:

forming a metal wire on a base;

5 applying an insulating material onto the metal wire to form an insulation layer;

forming another metal wire on the insulation layer, thereby connecting the metal wires which sandwich the insulation layer, through a contact hole formed in the insulation layer; and

10 separating the metal wires and the insulation layer from the base.

2. The method of manufacturing a connection substrate according to claim 1,

15 wherein the step of applying an insulating material onto the metal wire, and the step of forming another metal wire, thereby connecting the metal wires are repeated at least two times.

3. The method of manufacturing of a connection substrate according to claim 1,

wherein the base comprises glass.

4. A connection substrate which is manufactured by the method of claim 1.

20 5. A method of manufacturing a semiconductor device, comprising:
a step of forming a connection substrate on a base, comprising, forming a metal wire on a base, applying an insulating material onto the metal wire to form an insulation layer, and forming another metal wire on the insulation layer, thereby connecting the metal wires which sandwich the insulation layer through a contact hole formed in the insulation layer;

a step of mounting a semiconductor chip on the metal wire which is bared; and

a step of separating the connection substrate from the base.

30 6. The method of manufacturing a semiconductor device of claim 5, wherein a plurality of the semiconductor chips are mounted on the connection substrate.

7. The method of manufacturing a semiconductor device of claim 5,

wherein in the step of forming a connection substrate, the step of applying an insulating material onto the metal wire and the step of forming another metal wire, thereby connecting the metal wires are repeated at least two times.

5 8. The method of manufacturing a semiconductor device of claim 5, wherein the base comprises glass.

9. The method of manufacturing a semiconductor device of claim 5, wherein the base comprises silicon.

10. A semiconductor device manufactured by the method of claim 5.

10 11. A method of manufacturing a semiconductor device, comprising:
a step of forming a connection substrate on the base, comprising,
forming a metal wire to be connected to an electrode formed on a semiconductor chip,
on a first base, applying an insulating material onto the metal wire to form an
insulation layer, and forming another metal wire on the insulation layer, thereby
connecting the metal wires which sandwich the insulation layer, through a contact
15 hole formed in the insulation layer;

a step of disposing a second base on the connection substrate;

a step of separating the first base from the connection substrate;

a step of mounting a semiconductor chip on the metal wire that is
bared; and

20 a step of separating the connection substrate from the second base.

12. The method of manufacturing a semiconductor device of claim 11, wherein the second base comprises glass.

13. The method of manufacturing a semiconductor device of claim 11, wherein the second base comprises silicon.

25 14. The method of manufacturing a semiconductor device of claim 11, wherein a plurality of the semiconductor chips are mounted on the connection substrate.

15. The method of manufacturing a semiconductor device of claim 11, wherein in the step of forming a connection substrate the step of
30 applying an insulating material onto the metal, and the step of forming another metal wire, thereby connecting the metal wires are repeated at least two times.

16. A semiconductor device manufactured by the method of claim 11.